

ALIGNMENTS

RESULT 1
US-09-103-840A-2/c
; Sequence 2, Application US/09103840A
; Patent No. 6294328
; GENERAL INFORMATION:
; APPLICANT: FLEISCHMAN, Robert D.
; APPLICANT: WHITE, Owen R.
; APPLICANT: FRASER, Claire M.
; APPLICANT: VENTER, John C.
; TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM
; FILE REFERENCE: 24366-20007.00
; CURRENT APPLICATION NUMBER: US/09/103,840A
; CURRENT FILING DATE: 1998-06-24
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 2
; LENGTH: 4403765
; TYPE: DNA
; ORGANISM: Mycobacterium tuberculosis
; FEATURE:
; OTHER INFORMATION: CDC 1551
; OTHER INFORMATION: "n" bases at various positions throughout the sequence
; OTHER INFORMATION: represent a, t, c or g
US-09-103-840A-2

Query Match 2.7%; Score 35.8; DB 4; Length 4403765;
Best Local Similarity 55.1%; Pred. No. 16;
Matches 70; Conservative 0; Mismatches 57; Indels 0; Gaps 0;
QY 1044 cacgcgtacgacccctgcgcatttctgaaacaaacttcttaagttcacgacagccgt 1103
Db 4102529 CACCCTAACCCATCGGCGCATGACAAAGACGGTGACCTCATCGGCTTCACTTCGCCCA 4102470
QY 1104 caacggtggcgacgcgcattgctgattgtacttacgagcggttaatgccgctaga 1163
Db 4102469 CTGTGGGGCCCGCGCGCAGATCGCGCTGAGGGTCCCGAGAACGGCGCGGTAGG 4102410
QY 1164 catcctg 1170
Db 4102409 CATCATG 4102403

RESULT 2
US-09-103-840A-1/c
; Sequence 1, Application US/09103840A
; Patent No. 6294328
; GENERAL INFORMATION:
; APPLICANT: FLEISCHMAN, Robert D.
; APPLICANT: WHITE, Owen R.
; APPLICANT: FRASER, Claire M.
; APPLICANT: VENTER, John C.
; TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM
; FILE REFERENCE: 24366-20007.00
; CURRENT APPLICATION NUMBER: US/09/103,840A
; CURRENT FILING DATE: 1998-06-24
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 1
; LENGTH: 4411529
; TYPE: DNA
; ORGANISM: Mycobacterium tuberculosis
; OTHER INFORMATION: H37Rv
US-09-103-840A-1

Query Match 2.7%; Score 35.8; DB 4; Length 4411529;
Best Local Similarity 55.1%; Pred. No. 16;
Matches 70; Conservative 0; Mismatches 57; Indels 0; Gaps 0;
QY 1044 cacgcgtacgacccctgcgcatttctgaaacaaacttcttaagttcacgacagccgt 1103
Db 4110332 CACCCTAACCCATCGGCGCATGACAAAGACGGTGACCTCATCGGCTTCACTTCGCCCA 4110273
QY 1104 caacggtggcgacgcgcattgctgattgtacttacgagcggttaatgccgctaga 1163
Db 4110272 CTGTGGGGCCCGCGCGCAGATCGCGCTGAGGGTCCCGAGAACGGCGCGGTAGG 4110213
QY 1164 catcctg 1170
Db 4110212 CATCATG 4110206

RESULT 3
US-08-999-733-3
; Sequence 3, Application US/08999733
; Patent No. 6054573
; GENERAL INFORMATION:
; APPLICANT: Frey, Teryl K.
; APPLICANT: Pugachev, Konstantin V.
; APPLICANT: Abernathy, Emily S.
; TITLE OF INVENTION: Highly Infectious Rubella Virus Clones
; TITLE OF INVENTION: and Methods of Production
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Jones & Askew, LLP
; STREET: 191 Peachtree Street, 37th Floor
; CITY: Atlanta
; STATE: Georgia
; COUNTRY: USA
; ZIP: 30303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/999,733
; FILING DATE: 02-SEP-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/459,041
; FILING DATE: 02-JUN-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/093,453
; FILING DATE: 19-JUL-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/722,334
; FILING DATE: 28-JUN-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Greene, Jamie L.
; REGISTRATION NUMBER: 32,467
; REFERENCE/DOCKET NUMBER: 07362-0103
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (404) 818-3700
; TELEFAX: (404) 818-3799
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2558 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
US-08-999-733-3

Query Match 2.6%; Score 35.6; DB 3; Length 2558;

Best Local Similarity 45.4%; Pred. No. 0.42;
Matches 122; Conservative 0; Mismatches 147; Indels 0; Gaps 0;

QY 55 gtccattatgagggccgctcattaccgaagtcggttgcggaagaataatgccggt 114
DB 1142 GGCACCTGTGCGGACCGACGAGGGGTGCCAGGCGTACTACGACGACTCGAGGTG 1201
QY 115 atgcccctctngatgaagtcgaaggaagggcgatgccgtcaaaaaagggcccaagtgtgttt 174
DB 1202 CGCGGCTCGGGGATGACCCATGGCCGGGCGGCTCGCATCAGTCCACGCCCTCGC 1261
QY 175 gaagacaaaaagnatccggggtgtgtttaccgcgcgcngtttcaggcaaaatcgccgcc 234
DB 1262 AAGGCCCTTACATATACAGGCTATGAACATGCGCGGCGTGGCAAGACTACCCGC 1321
QY 235 atccatcgccggcaaaagcgctacttcagtcggtcgatgattgcggtgaaggcaacgac 294
DB 1322 ATCTCGTGGCTTCACGCGGGAAGACCTTTACGTCTGCCACCAATGCGCTCCTGCAC 1381
QY 295 gaatcaggttcgaacgtacgcgccga 323
DB 1382 GAGATCCAGGCCAAACTCCGGCGCGCGA 1410

RESULT 4

US-08-093-453B-1
; Sequence 1, Application US/08093453B
; Patent No. 5439814
; GENERAL INFORMATION:
; APPLICANT: Frey, Teryl K.
; APPLICANT: Dominguez, Geraldina
; APPLICANT: Wang, Chin-Yen
; TITLE OF INVENTION: Modified Infectious Rubella Virus
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Jamie L. Greene, Jones & Askew
; STREET: 191 Peachtree Street, 37th Floor
; CITY: Atlanta
; STATE: Georgia
; COUNTRY: United States
; ZIP: 30303

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50
COMPUTER: Macintosh
OPERATING SYSTEM: 7.0
SOFTWARE: Microsoft Word
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/093,453B
FILING DATE: 19 JUL 1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. 07/722,334
FILING DATE: 28 JUN 1991
ATTORNEY/AGENT INFORMATION:
NAME: Greene, Jamie L.
REGISTRATION NUMBER: 32,467
REFERENCE/DOCKET NUMBER: 07362-0101
TELEPHONE: 404-818-3700
TELEFAX: 404-818-3799
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 9757 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: RNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Rubella virus
STRAIN: Therien
US-08-093-453B-1

Query Match 2.6%; Score 35.6; DB 1; Length 9757;
Best Local Similarity 41.6%; Pred. No. 0.84;
Matches 112; Conservative 10; Mismatches 147; Indels 0; Gaps 0;

QY 55 gtccattatgagggccgctcattaccgaagtcggttgcggaagaataatgccggt 114
DB 3941 GGCACGUGUGCCCGACCGACGAGGGGUGGCGCCAGCGGCUACUACGACGACGAGGUG 4000
QY 115 atgcccctctngatgaagtcgaaggaagggcgatgccgtcaaaaaagggcccaagtgtgttt 174
DB 4001 CGCGGCUUGGGGUAUGACGCCAUGGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 4060
QY 175 gaagacaaaaagnatccggggtgtgtttaccgcgcgcngtttcaggcaaaatcgccgcc 234
DB 4061 AAGGCCCTTACATATACAGGCTATGAACATGCGCGGCGTGGCAAGACTACCCGC 4120
QY 235 atccatcgccggcaaaagcgctacttcagtcggtcgatgattgcggtgaaggcaacgac 294
DB 4121 AUCGCGUGGCUUACGCGGGAAGACCUUUUACGUGGCGGCGGCGGCGGCGGCGGCGGCG 4180
QY 295 gaatcaggttcgaacgtacgcgccga 323
DB 4181 GAGAUCCAGGCCAAACUCCGCGCGCGGA 4209

RESULT 5

US-08-459-041A-1
; Sequence 1, Application US/08459041A
; Patent No. 5663065
; GENERAL INFORMATION:
; APPLICANT: Frey, Teryl K.
; APPLICANT: Dominguez, Geraldina
; APPLICANT: Wang, Chin-Yen
; TITLE OF INVENTION: DNA Encoding Infectious Rubella Virus
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Jones & Askew
; STREET: 191 Peachtree Street, 37th Floor
; CITY: Atlanta
; STATE: Georgia
; COUNTRY: USA
; ZIP: 30303
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,041A
FILING DATE: 02-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Greene, Jamie L.
REGISTRATION NUMBER: 32,467
REFERENCE/DOCKET NUMBER: 07362-0102
TELEPHONE: (404) 818-3700
TELEFAX: (404) 818-3799
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 9759 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
US-08-459-041A-1

Query Match

2.6%; Score 35.6; DB 1; Length 9759;

INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 2159 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 1..2159
US-08-286-870A-7

Query Match 2.6%; Score 34.4; DB 3; Length 2159;
Best Local Similarity 47.3%; Pred. No. 0.9;
Matches 86; Conservative 0; Mismatches 96; Indels 0; Gaps 0;
QY 341 gcggcgangaantnngngcaatctgatccaatccggtttgtgactgcgctgcgttanc 400
Db 1778 GCGGTGAGGAGCTCGACTACAAGACCTTCGCGACCGTGGGCTTCACCAACCCGTTACGCT 1837
QY 401 gtccgttcagcaaaatccctgcctgcgatgccagccgttcgccaatcttgcataatgcga 460
Db 1838 TCCTGGAGCTGCAGACACCTTCACCATCGCGCTGGAACCTTCAGCAGCGCAACGAGG 1897
QY 461 tggacacaaatccgctngcggcagaccctgtggtttgtatcaaaagagccgncgangatt 520
Db 1898 TGTACATCGACCGCATCGAGTTCGTGCGCCGTGGAGGTGACCTAGGAGCGCGAGTACGACT 1957
QY 521 tc 522
Db 1958 TC 1959

RESULT 8
US-08-804-227C-7
Sequence 7, Application US/08804227C
Patent No. 5876991
GENERAL INFORMATION:
APPLICANT: DeHoff, Bradley S.
APPLICANT: Kuhstoss, Stuart A.
APPLICANT: Rostock, Paul R., Jr.
APPLICANT: Sutton, Kimberly L.
TITLE OF INVENTION: POLYKETIDE SYNTHASE GENES
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: THOMAS G. PLANT 1501
STREET: LILLY CORPORATE CENTER
CITY: INDIANAPOLIS
STATE: IN
COUNTRY: USA
ZIP: 46285
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM Compatible
OPERATING SYSTEM: MS-DOS
SOFTWARE: ASCII(DOS) text only
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/804,227C
FILING DATE: February 21, 1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Plant, Thomas G.
REGISTRATION NUMBER: 35,784
REFERENCE/DOCKET NUMBER: X-8231
TELECOMMUNICATION INFORMATION:
TELEPHONE: 317-276-2459
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 4377 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear

MOLECULE TYPE: DNA (genomic)
FEATURE:
NAME/KEY: CDS
LOCATION: 350..14002
FEATURE:
NAME/KEY: CDS
LOCATION: 14046..20036
FEATURE:
NAME/KEY: CDS
LOCATION: 20110..31284
FEATURE:
NAME/KEY: CDS
LOCATION: 31329..36071
FEATURE:
NAME/KEY: CDS
LOCATION: 36155..41830
US-08-804-227C-7
Query Match 2.5%; Score 34; DB 2; Length 44377;
Best Local Similarity 54.0%; Pred. No. 5.9;
Matches 61; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
QY 346 gangaantnngngcaatctgatccaatccggtttgtgactgcgctgcgttanc 405
Db 36170 GACGAAGTCTGGTCCGTGCGACCTCCGTCAAGGAGACGCGGCTGCGCGGCAC 36229
QY 406 ttcagcaaaatccctgcctgcgatccgagccgttcgccaatcttgcataatgc 458
Db 36230 AACCGGGAGCTCTGCGCGCGCAGCAGCGGTGCGCATGCGTGGCATGCGC 36282
RESULT 9
US-08-804-198-1
Sequence 1, Application US/08804198
Patent No. 5945320
GENERAL INFORMATION:
APPLICANT: Burgett, Stanley G.
APPLICANT: Kuhstoss, Stuart A.
APPLICANT: Rao, Nagaraja R.
APPLICANT: Richardson, Mark A.
APPLICANT: Rostock, Paul R., Jr.
TITLE OF INVENTION: PLATENOLIDE SYNTHASE GENE
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: PAUL R. CANTRELL 1138
STREET: LILLY CORPORATE CENTER
CITY: INDIANAPOLIS
STATE: IN
COUNTRY: USA
ZIP: 46285
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: Macintosh 7.0
SOFTWARE: Microsoft Word 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/804,198
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: CANTRELL, PAUL R.
REGISTRATION NUMBER: 36,470
REFERENCE/DOCKET NUMBER: P9113
TELECOMMUNICATION INFORMATION:
TELEPHONE: 317-276-3885
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 44377 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)

REFERENCE/DOCKET NUMBER: KUBOTA=5
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1767 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1767
US-08-605-501-1

Query Match 2.4%; Score 31.6; DB 2; Length 1767;
Best Local Similarity 43.5%; Pred. No. 6;
Matches 118; Conservative 0; Mismatches 153; Indels 0; Gaps 0;
Qy 178 gacaaaagatccggcggtgtttaccgcccngtttcaggcaaaatcgccgcaatc 237
Db 889 GACCTCAACAATCCGGCGTGTGTACCCCGGATGTCACGGCTACGGACTGGCGCGC 948
Qy 238 catcgccgcaaaagcgcgtacttcagtcggtgattgcccgttgaggaacacgacgaa 297
Db 949 CAGTGGAGCAGGACTTCCACCAGCGGTGCACGTCAACGTACAGCGGGGAACACCGGC 1008
Qy 298 atcgagtcgaagcgtacgcccgaagcgttggaacttaagcgcgcgangaantnngn 357
Db 1009 TACTACAGCAGCTTCGACTCGCTCGGAGCCCTCGCCAAAGTCTCGTACGGGTCTTC 1068
Qy 358 ngcaatctgatccaatccggtttgtgactgcgtgcgtanccttcggttcagcaaaatc 417
Db 1069 CACGACGGCAGCTACTCCAGCTCCGGCGCGCTGCGCACGGCGCGGATCAACTTCAGC 1128
Qy 418 cctgcctgcgtacgcccagcgcgttcgcaatc 448
Db 1129 GCCGTGCATCCGGCGCGCTGGTGTCTGCT 1159

RESULT 20
US-08-399-646-11
Sequence 11, Application US/08399646
Patent No. 5556781
GENERAL INFORMATION:
APPLICANT: KUBOTA, Michio
APPLICANT: TSUSAKI, Keiji
APPLICANT: HATTORI, Kazuko
APPLICANT: SUGIMOTO, Toshiyuki
TITLE OF INVENTION: DNA ENCODING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., Suite 300
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/399,646
FILING DATE: 07-MAR-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 59834

FILING DATE: 07-MAR-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 59840
FILING DATE: 07-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: BROWDY, Roger L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: KUBOTA=5
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 2161 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 207..1994
US-08-399-646-11
Query Match 2.4%; Score 31.6; DB 1; Length 2161;
Best Local Similarity 43.5%; Pred. No. 6.7; Indels 0; Gaps 0;
Matches 118; Conservative 0; Mismatches 153; Indels 0; Gaps 0;
Qy 178 gacaaaagatccggcggtgtttaccgcccngtttcaggcaaaatcgccgcaatc 237
Db 1116 GACCTCAACAATCCGGCGTGTGTACCCCGGATGTCACGGCTACGGACTGGCGCGC 1175
Qy 238 catcgccgcaaaagcgcgtacttcagtcggtgattgcccgttgaggaacacgacgaa 297
Db 1176 CAGTGGAGCAGGACTTCCACCAGCGGTGCACGTCAACGTACAGCGGGGAACACCGGC 1235
Qy 298 atcgagtcgaagcgtacgcccgaagcgttgcaacttaagcgcgcgangaantnngn 357
Db 1236 TACTACAGCAGCTTCGACTCGCTCGGAGCCCTCGCCAAAGTCTCGTACGGGTCTTC 1295
Qy 358 ngcaatctgatccaatccggtttgtgactgcgtgcgtanccttcggttcagcaaaatc 417
Db 1296 CACGACGGCAGCTACTCCAGCTTCGGCGCGCTGCCACGGCGCGGATCAACTTCAGC 1355
Qy 418 cctgcctgcgtacgcccagcgcgttcgcaatc 448
Db 1356 GCCGTGCATCCGGCGCGCTGGTGTCTGCT 1386

RESULT 21
US-08-607-321-11
Sequence 11, Application US/08607321
Patent No. 5716813
GENERAL INFORMATION:
APPLICANT: KUBOTA, Michio
APPLICANT: TSUSAKI, Keiji
APPLICANT: HATTORI, Kazuko
APPLICANT: SUGIMOTO, Toshiyuki
TITLE OF INVENTION: DNA ENCODING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., Suite 300
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS

;; SOFTWARE: PatentIn Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/08/607,321
;; FILING DATE: 26-FEB-1996
;; CLASSIFICATION: 435
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: US 08/399,646
;; FILING DATE: 07-MAR-1995
;; APPLICATION NUMBER: JP 59834
;; FILING DATE: 07-MAR-1994
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: JP 59840
;; FILING DATE: 07-MAR-1994
;; ATTORNEY/AGENT INFORMATION:
;; NAME: BROWDY, Roger L.
;; REGISTRATION NUMBER: 25,618
;; REFERENCE/DOCKET NUMBER: KUBOTA-5
;; TELEPHONE: 202-628-5197
;; TELEFAX: 202-737-3528
;; TELEX: 248633
;; INFORMATION FOR SEQ ID NO: 11:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 2161 base pairs
;; TYPE: nucleic acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: cDNA
;; FEATURE:
;; NAME/KEY: CDS
;; LOCATION: 207..1994
;; US-08-607-321-11

Query Match 2.4%; Score 31.6; DB 1; Length 2161;
Best Local Similarity 43.5%; Pred. No. 6.7; Indels 0; Gaps 0;
Matches 118; Conservative 0; Mismatches 153;
QY 178 gacaaaagatccggcggtgtgtttaccgcgcngtttcaggcaaaatcgccgcac 237
DB 1116 GACCTCAACATCCCGCGTGTCTACCCCGGGATGTCAACGGCTACGGACTGGCGGC 1175
QY 238 catcgcgcaaaagcgcgtacttcagtcggtgattccggttaaggcaacgacgaa 297
DB 1176 CAGTGGAGCGACGACTTCCACACGCGCTGCACGTCAACGTACGCGGGAAACACCGGC 1235
QY 298 atcgagttcgaacgctacgcgcgcgaagcgttggcaaaacttaagcgcggaangannn 357
DB 1236 TACTACAGCGACTTCGACTCGCTCGGAGCCCTGCCAAGGTCTGCTGACGGGTCTTC 1295
QY 358 ngcaatctgatccaatccgggtttgtggactgcgtgcgttancctccgttcagcaaaatc 417
DB 1296 CACGACGCGAGCTACTCCAGCTTCCGCGCGCTGCGACGCGCGCGGATCAACTTCAGC 1355
QY 418 cctgcgctgatcgccgagcgttcgcacatc 448
DB 1356 GCCGTGATCCGCGCGCTGCTGCTGCT 1386

RESULT 22
US-08-961-240-11
; Sequence 11, Application US/08961240
; Patent No. 5830715
; GENERAL INFORMATION:
; APPLICANT: KUBOTA, Michio
; APPLICANT: TSUSAKI, Keiji
; APPLICANT: HAYTORI, Kazuko
; APPLICANT: SUGIMOTO, Toshiyuki
; TITLE OF INVENTION: DNA ENCODING
; TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BROWDY AND NEIMARK

;; STREET: 419 Seventh Street, N.W., Suite 300
;; CITY: Washington
;; STATE: D.C.
;; COUNTRY: USA
;; ZIP: 20004
;; COMPUTER READABLE FORM:
;; MEDIUM TYPE: Floppy disk
;; COMPUTER: IBM PC compatible
;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: PatentIn Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/08/961,240
;; FILING DATE: 30-OCT-1997
;; CLASSIFICATION: 435
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: US 08/399,646
;; FILING DATE: 07-MAR-1995
;; APPLICATION NUMBER: JP 59834
;; FILING DATE: 07-MAR-1994
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: JP 59840
;; FILING DATE: 07-MAR-1994
;; ATTORNEY/AGENT INFORMATION:
;; NAME: BROWDY, Roger L.
;; REGISTRATION NUMBER: 25,618
;; REFERENCE/DOCKET NUMBER: KUBOTA-5
;; TELEPHONE: 202-628-5197
;; TELEFAX: 202-737-3528
;; TELEX: 248633
;; INFORMATION FOR SEQ ID NO: 11:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 2161 base pairs
;; TYPE: nucleic acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: cDNA
;; FEATURE:
;; NAME/KEY: CDS
;; LOCATION: 207..1994
;; US-08-961-240-11

Query Match 2.4%; Score 31.6; DB 2; Length 2161;
Best Local Similarity 43.5%; Pred. No. 6.7; Indels 0; Gaps 0;
Matches 118; Conservative 0; Mismatches 153;
QY 178 gacaaaagatccggcggtgtgtttaccgcgcngtttcaggcaaaatcgccgcac 237
DB 1116 GACCTCAACATCCCGCGTGTCTACCCCGGGATGTCAACGGCTACGGACTGGCGGC 1175
QY 238 catcgcgcaaaagcgcgtacttcagtcggtgattccggttaaggcaacgacgaa 297
DB 1176 CAGTGGAGCGACGACTTCCACACGCGCTGCACGTCAACGTACGCGGGAAACACCGGC 1235
QY 298 atcgagttcgaacgctacgcgcgcgaagcgttggcaaaacttaagcgcggaangannn 357
DB 1236 TACTACAGCGACTTCGACTCGCTCGGAGCCCTGCCAAGGTCTGCTGACGGGTCTTC 1295
QY 358 ngcaatctgatccaatccgggtttgtggactgcgtgcgttancctccgttcagcaaaatc 417
DB 1296 CACGACGCGAGCTACTCCAGCTTCCGCGCGCTGCGACGCGCGCGGATCAACTTCAGC 1355
QY 418 cctgcgctgatcgccgagcgttcgcacatc 448
DB 1356 GCCGTGATCCGCGCGCTGCTGCTGCT 1386

RESULT 23
US-08-605-501-11
; Sequence 11, Application US/08605501
; Patent No. 5834287
; GENERAL INFORMATION:

APPLICANT: KUBOTA, Michio
APPLICANT: TSUSAKI, Keiji
APPLICANT: HATTORI, Kazuo
APPLICANT: SUGIMOTO, Toshiyuki
TITLE OF INVENTION: DNA ENCODING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., Suite 300
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/605,501
FILING DATE: 26-FEB-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/399,646
FILING DATE: 07-MAR-1995
APPLICATION NUMBER: JP 59834
FILING DATE: 07-MAR-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 59840
FILING DATE: 07-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: BROWDY, Roger L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: KUBOTA-5
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 2161 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cdna
FEATURE:
NAME/KEY: CDS
LOCATION: 207..1994
US-08-605-501-11

Query Match 2.4%; Score 31.6; DB 2; Length 2161;
Best Local Similarity 43.5%; Pred. No. 6.7;
Matches 118; Conservative 0; Mismatches 153; Indels 0; Gaps 0;
QY 178 gacaaaagatcggcgctgttttaccgcccgttttaccgaaaatcgccgcac 237
Db 1116 GACCTCAACAAATCCCGCGCTGCTGTACCCCGGATGTCAACGGCTACGGACTGGCGGC 1175
QY 238 catcgccgcaaaagcgcgtacttcagtcggtcggtgattgacgttgaaggcaacgacgaa 297
Db 1176 CAGTGGAGCCAGACTTCCACCGCCGCTGACGTCAACGTCAACGGGGAACACCGGC 1235
QY 298 atcgagttcgaagctacgcgcgcgaagcgttgcaaaccttaagcgcgcgaangantnngn 357
Db 1236 TACTACAGCACTTCGACTCGCTCGGAGCCCTGCCAAGGTCTCGTGTGACGGGTCTTC 1295
QY 358 ngeaatctgataatccggtttgtgactgcgtcgtancgcttcggttcagcaaaatc 417
Db 1296 CACGACGGCAGCTACTCTCCGCGCGCTGCGTGCACGGCGCGGATCAACTTCAGC 1355
QY 418 cctgcgctgatcgccgagcgttcgccatct 448

Db 1356 GCCGTGCATCCGGCCGCGCTGGTGGTCTGCT 1386
RESULT 24
US-08-471-119A-1
Sequence 1, Application US/08471119A
Patent No. 5827706
GENERAL INFORMATION:
APPLICANT: Leitner, Ernst
APPLICANT: Schneider, Elisabeth
APPLICANT: Schoergendorfer, Kurt
APPLICANT: Weber, Gerhard
TITLE OF INVENTION: Cyclosporin Synthetase
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 5827706artis Corporation
STREET: 59 Route 10
CITY: East Hanover
STATE: New Jersey
COUNTRY: USA
ZIP: 07936
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,119A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Kasenoff, Melvyn
REGISTRATION NUMBER: 26,389
REFERENCE/DOCKET NUMBER: 100-8029/CONT/CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201 503 8474
TELEFAX: 201 503 8807
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 46899 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Tolypocladium niveum
STRAIN: ATCC 34921
US-08-471-119A-1

Query Match 2.4%; Score 31.6; DB 1; Length 46899;
Best Local Similarity 55.5%; Pred. No. 34;
Matches 61; Conservative 0; Mismatches 49; Indels 0; Gaps 0;
QY 1165 atctgcctaccctcttttcgcgatttaacgtcgcgatataccgacagcgcaagca 1224
Db 3576 ATCGAGCCAGCGAGGTAGACCGCTTTTACTCAACAGCGACCAAGTACGGGATGCAGCA 3635
QY 1225 ttgggttgcttggaattggacgaagaagacacctcgtttgtgcagcttcgt 1274
Db 3636 GTGGTTATCCGAGACAGGAGGAGGAGGAGCGCTCGCATGATGATTCCTTCGT 3685
RESULT 25
US-09-036-987A-1/c
Sequence 1, Application US/09036987A
Patent No. 6143526
GENERAL INFORMATION:
APPLICANT: Baltz, Richard H.
APPLICANT: Broughton, Mary C.


```

RESULT 39
PCT-US91-04036-1
; Sequence 1, Application PC/TUS9104036
; GENERAL INFORMATION:
; APPLICANT: Kishore, Ganesh M.
; TITLE OF INVENTION: Increased Starch Content in Plants
; NUMBER OF SEQUENCES: 23
; CORRESPONDENCE ADDRESS:
; ADDRESSER: Monsanto Co.
; STREET: 700 Chesterfield Village Parkway
; CITY: St. Louis
; STATE: Missouri
; COUNTRY: USA
; ZIP: 63198
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US91/04036
; FILING DATE: 19910607
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:

```

```
; NAME: McBride, Thomas P.
; REGISTRATION NUMBER: 32706
; REFERENCE/DOCKET NUMBER: 38-21(10530)A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (314) 537-7357
; TELEFAX: (314) 537-6047
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1296 base pairs
; TYPE: NUCLEIC ACID
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..1293
PCT-US91-04036-1

Query Match 2.3%; Score 31; DB 5; Length 1296;
Best Local Similarity 48.3%; Pred. No. 7.9;
Matches 73; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

QY 343 ggcgangaanngnngcaatctgatccaatccggtttgtgactgcgtgcgtancctg 402
Db 721 GGCAAGATTGATTTCCCAAGATCACCAGACCGGTCTGGCTATGGCACCCTTCCCG 780

QY 403 ccgttcagcaaaatccctgcgtgcgtgcgtgcgtgcgtgcgtgcgtgcgtgcgtg 462
Db 781 CTCCTTGGTACATCCAGCCCGATGCCGCGTACTGGCGGATGGGTACGCTG 840

QY 463 gacaccaatccgctngcgagaccctgtg 493
Db 841 GAAGCTTACTGGAAGCGAACCTCGATCTGG 871

RESULT 41
PCT-US94-05275-1
; Sequence 1, Application PC/TUS9405275
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: Method of Improving the Quality of Stored
; TITLE OF INVENTION: Potatoes
; NUMBER OF SEQUENCES: 26
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25 (EPO)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US94/05275
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/070155
; FILING DATE: 28-MAY-1993
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1296 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..1296
PCT-US94-05275-1

Query Match 2.3%; Score 31; DB 5; Length 1296;
Best Local Similarity 48.3%; Pred. No. 7.9;
Matches 73; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

QY 343 ggcgangaanngnngcaatctgatccaatccggtttgtgactgcgtgcgtancctg 402
Db 721 GGCAAGATTGATTTCCCAAGATCACCAGACCGGTCTGGCTATGGCACCCTTCCCG 780

QY 403 ccgttcagcaaaatccctgcgtgcgtgcgtgcgtgcgtgcgtgcgtgcgtgcgtg 462
Db 781 CTCCTTGGTACATCCAGCCCGATGCCGCGTACTGGCGGATGGGTACGCTG 840

QY 463 gacaccaatccgctngcgagaccctgtg 493
Db 841 GAAGCTTACTGGAAGCGAACCTCGATCTGG 871

RESULT 40
PCT-US91-04036-3
; Sequence 3, Application PC/TUS9104036
; GENERAL INFORMATION:
; APPLICANT: Kishore, Ganesh M.
; TITLE OF INVENTION: Increased Starch Content in Plants
; NUMBER OF SEQUENCES: 23
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Monsanto Co.
; STREET: 700 Chesterfield Village Parkway
; CITY: St. Louis
; STATE: Missouri
; COUNTRY: USA
; ZIP: 63198
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US91/04036
; FILING DATE: 19910607
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: McBride, Thomas P.
; REGISTRATION NUMBER: 32706
; REFERENCE/DOCKET NUMBER: 38-21(10530)A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (314) 537-7357
; TELEFAX: (314) 537-6047
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1296 base pairs
; TYPE: NUCLEIC ACID
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
```


ATTORNEY/AGENT INFORMATION:
NAME: Elizabeth Lassen
REGISTRATION NUMBER: 31,845
NAME: Donna E. Scherer
REGISTRATION NUMBER: 34,719
NAME: Carl J. Schwedler
REGISTRATION NUMBER: 36,924
REFERENCE/DOCKET NUMBER: CGNE 93-2
TELEPHONE: 916-753-6313
TELEFAX: 916-753-1510
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 1323 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
FEATURE:
NAME/KEY: CDS
LOCATION: 16..1308
US-08-484-434C-13

TELEFAX: 530-792-2463
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 1323 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
FEATURE:
NAME/KEY: CDS
LOCATION: 16..1308
US-08-484-434C-13

Query Match 2.3%; Score 31; DB 2; Length 1323;
Best Local Similarity 48.3%; Pred. No. 7.9;
Matches 73; Conservative 0; Mismatches 78; Indels 0; Gaps 0;
Qy 343 ggcgangaantnngngcaatctgatccaatccggtttgtggactgcgctgctgancctg 402
Db 736 GGCAGAGATTGATTCCTCAAGATCAGCGAAGCCGGTCTGGCTATGCGCACCGTTCCCG 795
Qy 403 ccgttcagcaaaatccctgcgtgcgtgcgagccggttcgcatcttcgcaatgcatg 462
Db 796 CTCCTCTGCGTACAAATCCGACCCGGATGCCGAGCCGCTACTGGCGGATGGGTACGCTG 855
Qy 463 gacaccaatccgctngcgcagaccctgtgg 493
Db 856 GAAGCTTACTGGAAGCGAACCTCGATCTGG 886

Query Match 2.3%; Score 31; DB 1; Length 1323;
Best Local Similarity 48.3%; Pred. No. 7.9;
Matches 73; Conservative 0; Mismatches 78; Indels 0; Gaps 0;
Qy 343 ggcgangaantnngngcaatctgatccaatccggtttgtggactgcgctgctgancctg 402
Db 736 GGCAGAGATTGATTCCTCAAGATCAGCGAAGCCGGTCTGGCTATGCGCACCGTTCCCG 795
Qy 403 ccgttcagcaaaatccctgcgtgcgtgcgagccggttcgcatcttcgcaatgcatg 462
Db 796 CTCCTCTGCGTACAAATCCGACCCGGATGCCGAGCCGCTACTGGCGGATGGGTACGCTG 855
Qy 463 gacaccaatccgctngcgcagaccctgtgg 493
Db 856 GAAGCTTACTGGAAGCGAACCTCGATCTGG 886

Search completed: June 30, 2002, 12:48:41
Job time: 57046 sec

RESULT 45
US-08-484-434C-13
Sequence 13, Application US/08484434C
Patent No. 5969214
GENERAL INFORMATION:
APPLICANT: STALKER, DAVID
TITLE OF INVENTION: GLYCOCEN BIOSYNTHETIC ENZYMES IN PLANTS
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: Calgene LLC
STREET: 1920 Fifth Street
CITY: Davis
STATE: CA
COUNTRY: USA
ZIP: 95616
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC
OPERATING SYSTEM: Windows NT 4.0; MS Word for Windows 7.0a
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,434C
FILING DATE: 07-JUN-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/016,881
FILING DATE: 11-FEB-1993
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Schwedler, Carl J.
REGISTRATION NUMBER: 36,924
REFERENCE/DOCKET NUMBER: 15593/01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 530-792-2265

Query Match 2.3%; Score 31; DB 1; Length 1323;
Best Local Similarity 48.3%; Pred. No. 7.9;
Matches 73; Conservative 0; Mismatches 78; Indels 0; Gaps 0;
Qy 343 ggcgangaantnngngcaatctgatccaatccggtttgtggactgcgctgctgancctg 402
Db 736 GGCAGAGATTGATTCCTCAAGATCAGCGAAGCCGGTCTGGCTATGCGCACCGTTCCCG 795
Qy 403 ccgttcagcaaaatccctgcgtgcgtgcgagccggttcgcatcttcgcaatgcatg 462
Db 796 CTCCTCTGCGTACAAATCCGACCCGGATGCCGAGCCGCTACTGGCGGATGGGTACGCTG 855
Qy 463 gacaccaatccgctngcgcagaccctgtgg 493
Db 856 GAAGCTTACTGGAAGCGAACCTCGATCTGG 886